

COVER STORY

by Vicki Smith-Daniels

HOW TO GET THE MOST FROM YOUR METRICS

Hitting the benchmark

Hospitals that benchmark supply chain activities and act on data often report meaningful performance improvement. Yet, successful benchmarking programs—ones that focus on achieving continuous improvement in supply chain operations—are hard to find. Too often, supply chain benchmarks are narrow in scope and don't provide a clear picture of which aspects of the supply chain need improvement. Or hospitals might have had limited success with benchmarking because the current tools fall short of their needs and expectations.

QUICK TAKE>>>

Supply chain metrics can be a tremendous benefit to an organization or detrimental, depending on the steps taken to exact results and accurately apply them. Setting attainable goals and ensuring the proper team is in place is critical to a successful benchmarking project. But those steps are only the beginning. Materials managers must know what metrics to use for their organizations and how to interpret the numbers. If not done correctly, the time and effort put into a benchmarking project could be for naught.

Ensuring that everyone works together on benchmarking and supply chain performance improvement can be a daunting task due to the complexity and scale of the transactions needed to keep supply chains running. Just as important, benchmarking requires that hospitals manage not only the

overwhelming task of collecting data, but also oversee the human side of measuring performance and implementing change. By following a structured implementation process, hospitals are more likely to reap the maximum benefit from benchmarking.

A solid foundation

Launching a benchmarking initiative involves managing a myriad of activities that direct the process and establish a foundation. By deploying a few critical steps during the launch phase, hospitals significantly increase the likelihood that they will achieve sustainable performance improvement.

Establish objectives. Hospitals must establish the specific reasons for benchmarking and translate them into measurable objectives. A few examples are reducing patient care costs and needing credible evidence to work with physicians on pricing because orthopedic implant contracts are up for renewal.

Project management tools should be used to establish and communicate benchmarking objectives, including documenting them in a one- to two-page project charter. Benchmarking coordinators unfamiliar with project charters should find project experts who will help them prepare a charter. As in other industries, the

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charter should be presented to executives and distributed to all of the critical stakeholders in the benchmarking initiative before data collection begins.

The right people. A supply chain benchmarking initiative should involve multiple departments and multiple decision-makers with authority at all levels of a hospital. The sponsor is the key stakeholder as he/she takes ownership of the benchmarking initiative and is responsible for ensuring successful completion of the benchmarking objectives. Typically, a benchmarking sponsor is a C-suite executive, such as the CFO or COO, who is responsible for supply chain operations.

The focal point for executing the benchmarking initiative is a cross-functional team typically led by the highest ranking supply chain manager. The team should be composed of members from finance, accounting, information technology/decision support, quality and other potentially impacted departments. It also should include process and clinical people such as clinical resource managers, experts on lean management and physician leaders.

Other stakeholders, such as GPOs, distributors and consultants, should be added to the team because of their potential to positively impact supply chain improvements. A benchmarking coordinator should be designated to maintain the data and appropriate documentation.

Industry standard definitions. Two components exist to ensure correct measurement of the data—measuring the right things, and accurately and consistently measuring the right things across benchmarked hospitals. It is highly recommended that an organization adopt a benchmarking tool that measures supply expense using the industry standard of total delivered supply cost by the Association of Healthcare Resource & Materials Management and Healthcare Financial Management Association (see full definition at www.hfma.org/hc). Unless the benchmarking tool has a research engine to help validate data submissions, hospitals that don't comply with the standard definitions cannot be identified.

Stressing communication. The benchmarking sponsor's roles and respon-

sibilities include making sure that the benchmarking team and coordinator don't encounter any resistance during the data collection process. After the benchmarking team is appointed, the sponsor should communicate through e-mail to all hospital managers and relevant trading partners the rationale for benchmarking, the specific objectives the hospitals hopes to achieve and the scheduled plan for data collection. This communication should establish how various department managers can effectively support the benchmarking initiative and how benchmarks can assist these departments in improving their performance. Keeping the data collection process on schedule should be strongly emphasized.

Gathering data

Depending on a hospital's general ledger codes and how available it is to other data sources, gathering data can be a relatively streamlined process or one that takes considerable time and resources. If a hospital pays little attention to the benchmarking launch, past experience has shown that organizational resistance can slow down the process and use more resources than needed to gather data.

Don't begin collecting data without first assessing your hospital's readiness. Supply chain data is sometimes inaccurate and incomplete and needs to be cleaned before preparing it for benchmarking. Depending on a hospital's experience level, and data accuracy and availability, the timetable for gathering data should be adapted to the challenges ahead. Some hospitals can complete the data collection process in less than a few weeks. If a hospital has little experience with benchmarking, it may take a few months to complete data collection if using they use internal resources. Hospitals may want to partner with a distributor, consultant or GPO to assist. The team should support the collection process in the following ways:

- Prepare a project schedule for completing data collection.

SCMetrix takes benchmarking to new level

SCMetrix was developed by AHRMM and the W.P. Carey School of Business, Arizona State University, Tempe, to track the important elements of a hospital's supply chain from financial metrics and operational indicators to physician engagement and process automation. It includes supply and revenue financial measures of actions already taken and complements the financial measures with operational, organizational and supply chain structure indicators—measures that are the drivers of future financial performance. Also, SCMetrix offers a comparative assessment of a hospital's best-known supply chain practices. This tool measures the "soft side" of supply chain and correlates a hospital's performance with managerial capabilities and supply chain infrastructure. The tool allows for a "deep dive" into the complexities of a hospital compared with others in a user-defined peer group using an online dashboarding tool. More information can be found at www.scmatrix.org.

Benchmarks are being collected for the first and second half of 2007 with submission of the first half of 2008 under way in September. Through 2008, hospitals can participate with a no-charge subscription. Beginning in 2009, a nominal fee will be charged to cover operational costs.—V.S.D.

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- Identify appropriate contact people for data sources and encourage their timely participation.

- Publish weekly updates on data that's collected and outstanding.

- Schedule a team meeting to review the data before final submission.

- Contact department managers and the data analyst to clarify unarticulated assumptions.

- Provide updates to the C-suite and engage them when roadblocks are encountered.

The first time a hospital participates in a benchmarking initiative, its data may need to be translated into a benchmarking format. Hospitals should work closely with their benchmarking provider to identify if data estimation and translation procedures have been developed, and ask for assistance in translating the data into the required format. All assumptions and data sources should be documented for future submissions.

Measuring soft data. There are effective ways to measure a hospital's degree of practice implementation by deploying "soft metrics." Using the SCMetrix benchmarking tool (see sidebar on page 20),

hospitals can compare their degree of practice implementation with other hospitals. To measure practice implementation, hospitals recruit qualified judges to assess whether their facility meets, exceeds or falls short on several supply chain dimensions. These judges answer a series of questions and assessment evaluations and their ratings form the basis for gauging practice implementation.

Interpreting benchmarks

To make sure that all stakeholders—from the C-suite to functional managers—do not use metrics in a negative way, the benchmarking sponsor, team lead and team members need to prepare their organization in a few critical ways:

- Train those involved in interpreting the metrics to participate in an advanced training program on hypothetical data.

- Stress the importance of using multiple financial metrics to evaluate performance.

- Discuss the importance of integrating supply and revenue metrics into the evaluation.

- Illustrate the relationships among collecting operational, organizational, and

practices and capabilities and their impact on financial performance.

- Make sure all stakeholders understand that the metrics that speak to the C-suite are not necessarily the same ones that can assist managers in making more effective decisions.

Consider the case of SunDevil Hospital, a hypothetical 175-bed general medical surgical hospital that uses SCMetrix. SunDevil delivers a wide range of high-volume, high-supply intensity services such as cardiac cath, interventional radiology, and orthopedic surgery and has comparative data on the following metrics: total supply expense as a percentage of adjusted operating expense, total supply expense as percentage of revenue and total supply expense per adjusted patient day.

SunDevil has initial benchmarking results using a peer group of similar-sized hospitals located in competitive urban environments. At first glance, the quartile analysis reports mixed results. SunDevil performs poorly on one metric while showing more favorable results on the other two. Several questions come to mind when interpreting these seemingly contradictory results. Could SunDevil's poor performance be the result of a different mix of cost drivers and regional factors? To explore this question, three additional financial metrics were analyzed: purchased services as a percentage of adjusted operating expense, nonlabor expenses as a percentage of adjusted operating expense and adjusted operating expense as a percentage of revenue.

The results show SunDevil slightly below the mean on the purchased services metric, in the highest quartile on nonlabor expenses, and in the best-performing quartile on adjusted operating expense as a percentage of revenue. It appears that labor (and possibly other operating expenses) is significantly lower for SunDevil than other hospitals. SunDevil performs at an average level on supply expense as a percentage of revenue.

But closer examination of the inpatient

Be wary of the 'standard' benchmark

Hospitals frequently monitor supply chain performance using the metric supply expense as a percentage of adjusted operating budget. This metric provides a good budget forecast and signals when a hospital's expenditures are beyond those allocated in the current budget. As a benchmarking metric, supply expense as a percentage of adjusted operating expense may not be a good gauge of comparative performance. When hospitals use this budget-focused metric to benchmark, they run the risk of misclassifying supply chain performance for a number of reasons, including:

1. Hospitals located in low-labor regions should have lower adjusted operating expenses.

2. Hospitals serving an older patient population may have higher usage of physician preference items and pay premium prices for new and enhanced devices and implants.

3. Higher patient acuity can result in high utilization of supplies and longer length-of-stays.—V.S.D.

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revenue per total facility patient day metric provides evidence that SunDevil receives less inpatient revenue than other hospitals in its peer group and receives a lower portion of revenue from outpatient services. Given lower reimbursement levels and lower inpatient revenues than their peer group, SunDevil may be more than an average supply chain performer.

No conclusions were reached, so another commonly used metric was examined—supply expense per adjusted patient day, which places SunDevil in the 25 percent to 50 percent quartile. Because adjusted patient day converts outpatient revenue into an equivalent inpatient day, the results could be a hospital's outpatient and inpatient service mix. SunDevil has one of the

chain structure, practices and capabilities is a must. To accomplish this, a benchmarking tool that goes beyond financial measures must be used.

This requires collecting data on volumes, product delivery, contract compliance, reporting structures and physician-hospital contract models, to mention a few. Hospitals need to examine cause-effect relationships between these factors and financial performance.

Validating that higher levels of physician engagement contributed to stronger financial performance, for example, provides evidence that hospitals should further invest resources in value analysis teams, physician incentive programs and physician supply chain leadership.

sented along with a project plan for undertaking key initiatives. The benchmarking sponsor takes full ownership for the successful completion of the benchmarking initiative. At this time, the sponsor engages the C-suite in a discussion of the business plan and works to secure the appropriate resources and funding to move the initiative to action. Like all performance improvements, a set of metrics must be identified and an appropriate baseline developed for future trending. The benchmarking coordinator and newly appointed performance improvement experts should be assigned the task of creating baselines for each selected metric. This includes not only the financial metrics used by the C-suite, but also other indicators that translate to the functional level.

If a hospital considers its benchmarking capability to be a strategic asset, the next step is to incorporate the key performance metrics and indicators into all aspects of the decision-making process. To accomplish this, the benchmarking sponsor and team lead need to educate the C-suite and all stakeholders that metrics that speak to the C-suite don't necessarily translate to action for other decisions-makers. And, just as important, metrics need to be predictors of future performance. To accomplish this, hospitals should always monitor and track metrics, frequently disseminate the information to supply chain managers, clinical resource managers, value analysis teams and the C-suite.

Building sustainable supply chain capabilities through data-driven performance improvement takes discipline, dedication and a relentless pursuit of excellence, which is a journey that never ends. **MMHC**

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Rather than speculate why benchmarks don't meet expectations, hospitals should identify potential cost drivers through statistical analysis.

lower percentages of outpatient revenue in their peer group. Closer analysis of the inpatient service mix, i.e., the pharmaceutical and surgical supply expenses, shows that SunDevil uses a higher percentage of pharmaceuticals than other hospitals in its peer group and an average amount of surgical supplies.

The best metrics. Rather than speculate why benchmarks don't meet expectations, hospitals should identify potential cost drivers through statistical analysis. Using the Medicare case-mix index as a proxy for acuity, SunDevil found it had a significantly higher case-mix index than others. As SunDevil learned more about its cost drivers, exploring other supply chain metrics, especially the practice implementation and the supply chain structure indicators, was the best option.

Performance drivers. Correlating top financially performing hospitals to their operational, organizational and supply

Take action

A benchmarking initiative should not be considered complete until the goals established during the launch phase are achieved. Some hospitals may engage their performance and process improvement experts in developing and implementing new items. This change could take the form of commissioning one or more high-performance supply chain improvement teams. Or the benchmarking team could become larger in number and scope and champion the performance improvement initiatives through their expanded roles.

Assuming performance drivers have been validated, the benchmarking team should prepare a business plan for the C-suite identifying potential areas for improvement. This plan must go beyond identifying improvement priorities to making the business case for investing in improved supply chain capabilities. Projected return on investment should be pre-